UNITED STATES PATENT AND TRADEMARK OFFICE

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10/054,436	01/18/2002	George R. Walgrove III	H10192/DPS	5449

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>17 September 2008</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-5,11,12 and 20-28</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-5,11,12 and 20-28</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Applicant's amendment was received on 9/17/08 and has been entered and

made of record. Currently, claims 1-5, 11-12, and 20-28 are pending.

Response to Arguments

2.   Applicant's arguments filed 9/17/08 have been fully considered but they are not

persuasive.

Applicant asserts that the combination of Pitts (US 6,345,168) and Kawana (US

6,967,727) do not teach, or in any way render obvious, applicant's invention of a

programmable detack charging system where the on/off control of the detack charger is

dependent upon programmable, selected paper weight, and the value of the paper

weight can be readily adjusted to provide maximum reduction in charger run time. The

examiner respectfully disagrees as the combination of Pitts and Kawana does disclose

such an invention. Particularly, Pitts states that control system **30** can independently

operate either the transfer corotron **14** or the detack corotron **16** to obtain the desired

electrical properties within the transfer zone during the transfer process (column 4 lines

33-36). Pitts further states that the DC bias in the transfer zone may be controlled

based on the particular weight of a sheet and gives the example wherein relatively

heavy weight papers may not require the variation of the DC bias for detacking

purposes while lighter papers may benefit from the variation of the DC bias. Pitts also

states that specific weights and types of paper can be mapped to very specific

behaviors of the DC bias, thus programmable (column 4 lines 37-61). Pitts even further

states that the DC bias can be negative, positive, or even zero. A zero DC bias would

be analogous to turning off a detack charger (column 4 lines 4-9). Kawana discloses

turning on and off a detack charger by turning on and off the bias voltage depending on

the transfer location of the sheet (column 5 lines 66-67 and column 7 lines 28-33).

Kawana was used to show that turning a detack charger on and off for a particular

reason is known in the art. Therefore, it would have been obvious to one of ordinary

skill in the art to turn the detack charger on and off using variation in the DC bias, where

a zero bias would be turning the detack charger off and any positive or negative voltage

would be turning the detack charger on.

Therefore, the rejection of claims 1-5, 11-12, and 20-28 is maintained.

Claim Rejections - 35 USC § 103

3.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

4.   Claims 1, 20-22, and 24 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Pitts (US 6345168) in view of U.S. Patent No. 6,967,727 to Kawana.

Regarding claims 1 and 20, Pitts discloses a printing apparatus having a detack charging system, comprising: a processor (see Fig. 1 "30"), and a detack charger operatively connected to said processor (see Fig. 1 "16", column 3 lines 1-3 and 10-12, and column 4 lines 29-35), wherein a programmed signal from said computer enables or disables said detack charger based at least on sheet weight, in response to a selected sheet weight of a sheet of paper fed into said printing apparatus (see column 4 lines 29-35 and 48-65, the DC bias in the transfer zone may be controlled based on the particular weight of a sheet and gives the example wherein relatively heavy weight papers may not require the variation of the DC bias for detacking purposes while lighter papers may benefit from the variation of the DC bias. Pitts also states that specific weights and types of paper can be mapped to very specific behaviors of the DC bias, thus programmable. Pitts even further states that the DC bias can be negative, positive, or even zero, a zero DC bias would be analogous to turning off a detack charger).

Pitts does not disclose expressly turning the power to the charger on and off.

Kawana discloses turning the power to the charger on and off (see column 5 line 64-column 7 line 37, specifically column 7 lines 32-33, reference states that power to the charger **111** is turned off after when the trailing edge of the sheet reaches the transfer end position and column 5 lines 66-67 show that power has to be turned on to allow transfer of the sheet to begin when printing is to be started).

Pitts & Kawana are combinable because they are from the same field of endeavor, reproduction devices (i.e. copiers, printers, etc.).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the turning on and off of a charger, as described by Kawana, with the system of Pitts.

The suggestion/motivation for doing so would have been to provide a more accurate regulatory charge means.

Therefore, it would have been obvious to combine Kawana with Pitts to obtain the invention as specified in claims 1 and 20.

Regarding claim 21, Pitts further discloses wherein said receiver sheet is a sheet of paper (see column 2 lines 55-58 and column 4 lines 48-55).

Regarding claim 22, Pitts further discloses wherein said receiver sheet is a transparency (see column 4 lines 61-65).

Regarding claim 24, Pitts further discloses wherein said programmed signal from said processor, comprises a signal to enable or disable said detack charger (see column 3 line 61-column 4 line 35).

5.   Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pitts in view of Myers (US 6,504,556) and Kawana (US 6,967,727).

Regarding claim 11, Pitts discloses a printing machine having a detack charging system, comprising: a feeder to store sheets of paper, said sheets of paper having at least one sheet having a sheet weight (see Fig. 1 "12", column 2 lines 55-60, and column 4 lines 48-55, it is inherent that every sheet of paper has an associated weight),

an interface having an input device, said interface configured for receiving from said

input device a sheet weight limit (see Fig. 1 "32" and column 4 lines 29-65), allowing

user selective operation of said detack charging system to detack said at least one

sheet (see column 4 lines 48-65), and a marking engine comprising a central

processing unit (CPU) (see Fig. 1 "10" and "30"), a detack charger (see Fig. 1 "16"), said

marking engine operatively connected to receive at least one sheet from said feeder

(see Fig. 1 and column 2 lines 55-64), said CPU operatively connected to receive said

sheet weight limit from said interface, and said detack charger operatively connected to

receive a first and a second signal from said CPU (see column 3 line 61-column 4 line

65), where said CPU provides said first signal when said sheet weight of said at least

one sheet is less than or equal to said inputted sheet weight limit, and said detack

charger is enabled in response to said first signal (see column 4 lines 29-65, reference

states that lighter papers benefit from the variation in DC bias, which is enabling of a

detack charger, reference also states that a user can input the weights of different

stocks in different paper supplies and when the sheet is fed to the system the weight

would be determined and mapped to an initial bias voltage which would in turn affect the

behavior of the bias voltage during transfer dependent on the weight of the paper), and

where said CPU provides said second signal when said sheet weight of said at least

one sheet is greater than said inputted sheet weight limit, and said detack charger is

disabled in response to said first signal (see column 4 lines 29-65, reference states that

heavier paper do not require a variation in DC bias, which is a disabling of a detack

charger).

Pitts does not disclose expressly an interface having a display, said interface further configured to access a menu system having a catalog of sheet attributes of said at least one sheet and turning the power to the charger on and off.

Myers discloses an interface having an input device and a display, said interface configured for receiving a sheet weight limit, said interface further configured to access a menu system having a catalog of sheet attributes of said at least one sheet, (see Figs. 4-6 and column 4 lines 1-60), and a marking engine comprising a central processing unit (CPU), having a memory to store said sheet weight limit and a detack charger, said marking engine operatively connected to receive at least one sheet from said feeder, said CPU operatively connected to receive said sheet weight limit from said interface, and said detack charger operatively connected to receive a first and a second signal from said CPU (see Figs. 4-6 and 9, column 2 lines 6-34, column 4 line 39-column 5 line 15, and column 7 lines 40-48 and 53-54).

Kawana discloses turning the power to the charger on and off (see column 5 line 64-column 7 line 37).

Regarding claim 12, Pitts discloses a method of detack charging in an image-forming machine, comprising receiving a sheet a paper from a feeder, said sheet of paper having a sheet weight (see Fig. 1 and column 2 lines 55-58 and 4 lines 48-55, it is inherent that every sheet of paper has an associated weight), configuring an interface to receive a sheet weight limit (see column 4 lines 37-65), storing said sheet weight limit in a memory of a central processing unit (CPU) of the image-forming machine (see column 4 lines 37-65), allowing user selective operation of said detack charging system to

detack said at least one sheet of paper (see column 4 lines 29-65), connecting said

CPU to a detack charger for receiving an enable and disable signal (see Fig. 1 and

column 4 lines 29-65), generating said enable signal from said CPU when said sheet

weight is less than or equal to said sheet weight limit and enabling said detack charger

(see column 4 lines 29-65, reference states that lighter papers benefit from the variation

in DC bias, which is enabling of a detack charger, reference also states that a user can

input the weights of different stocks in different paper supplies and when the sheet is

fed to the system the weight would be determined and mapped to an initial bias voltage

which would in turn affect the behavior of the bias voltage during transfer dependent on

the weight of the paper), and generating said disable signal from said CPU when said

sheet weight is greater than said sheet weight limit and disabling said detack charger

(see column 4 lines 29-65, reference states that heavier paper do not require a variation

in DC bias, which is a disabling of a detack charger).

Pitts does not expressly disclose configuring said interface to access a menu

system, said menu system having a catalog of sheet attributes of said sheet of paper

and turning the power to the charger on and off.

Myers discloses configuring said interface to access a menu system, said menu

system having a catalog of sheet attributes of said sheet of paper (see Figs. 4-6 and

column 4 lines 1-60).

Kawana discloses turning the power to the charger on and off (see column 5 line

64-column 7 line 37).

Pitts, Myers, & Kawana are combinable because they are from the same field of endeavor, effective transfer and detack of paper stock.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the use of a user interface with a display to configure a plurality of paper stock attributes and to store such a configuration in memory to be utilized by the printing system, as described by Myers, and the turning on and off of the charger, as described by Kawana, with the system of Pitts.

The suggestion/motivation for doing so would have been to provide enhanced efficiency through designation of paper stock attributes to increase the speed at which transferring and imaging can take place and to provide a more accurate regulatory charge means.

Therefore, it would have been obvious to combine Myers and Kawana with Pitts to obtain the invention as specified in claims 11 and 12.

6.   Claims 2-5 and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pitts and Kawana as applied to claims 1 and 20 above, and further in view of Myers.

Regarding claim 2, Pitts discloses a feeder to store sheets of paper, said sheets of paper comprising at least one sheet having a particular sheet weight (see Fig. 1 "12" and column 2 lines 55-60, and column 4 lines 48-55), and an interface having an input device (see Fig. 1 "32") and a display, said interface configured for receiving an inputted sheet weight limit (see column 4 lines 29-65), allowing a user to selectively enable said

detack charger for said at least one sheet based on sheet attributes and the sheet weight of said at least one sheet relative to said sheet weight limit (see column 4 lines 29-65).

Pitts and Kawana do not disclose expressly an interface configured for receiving an inputted sheet weight limit, said interface further configured to access a menu system having a catalog of sheet attributes of said at least one sheet.

Myers discloses a feeder to store sheets of paper, said sheets of paper comprising at least one sheet having a sheet weight (see Figs. 1, 2, 5, 6, and 9), and an interface having an input device and a display (see Fig. 9), said interface configured for receiving an inputted sheet weight limit, said interface further configured to access a menu system having a catalog of sheet attributes of said at least one sheet (see Figs. 4-6 and column 4 lines 1-60).

Regarding claim 25, Pitts discloses a feeder to store sheets of receiver sheets, said sheets of receiver sheets comprising at least one receiver sheet having a sheet weight (see Fig. 1 "12" and column 2 lines 55-60, and column 4 lines 48-55), and an interface having an input device (see Fig. 1 "32") and a display, said interface configured for receiving an inputted sheet weight limit (see column 4 lines 29-65), allowing a user to selectively enable said detack charger for said at least one receiver sheet (see column 4 lines 29-65).

Pitts and Kawana do not disclose expressly an interface configured for receiving an inputted sheet weight limit, said interface further configured to access a menu system having a catalog of sheet attributes of said at least one sheet.

Myers discloses a feeder to store sheets of paper, said sheets of paper

comprising at least one sheet having a sheet weight (see Figs. 1, 2, 5, 6, and 9), and an

interface having an input device and a display (see Fig. 9), said interface configured for

receiving an inputted sheet weight limit, said interface further configured to access a

menu system having a catalog of sheet attributes of said at least one sheet (see Figs. 4-

6 and column 4 lines 1-60).

Pitts, Kawana, & Myers are combinable because they are from the same field of

endeavor, effective transfer and detack of paper stock.

At the time of the invention, it would have been obvious to a person of ordinary

skill in the art to combine the use of a user interface with a display to configure a

plurality of paper stock attributes and to store such a configuration in memory to be

utilized by the printing system, as described by Myers, with the system of Pitts and

Kawana.

The suggestion/motivation for doing so would have been to provide enhanced

efficiency through designation of paper stock attributes to increase the speed at which

transferring and imaging can take place.

Therefore, it would have been obvious to combine Myers with Pitts and Kawana

to obtain the invention as specified in claims 2 and 25.

Regarding claims 3 and 26, Pitts further discloses a marking engine comprising a

central processing unit (CPU) having a memory to store said sheet weight limit (see Fig.

1 "10" and "30"), said marking engine operatively connected to said feeder to receive

said at least one sheet from said feeder (see Fig. 1 "12"), said CPU operatively

connected to said interface to receive said sheet weight limit from said interface (see

Fig. 1 "30" and column 4 lines 29-65), and said detack charger operatively connected to

receive said programmed signal from said CPU (see Fig. 1 "16" and column 4 lines 29-

65).

Regarding claims 4 and 27, Pitts further discloses wherein said programmed

signal enables said detack charger when said sheet weight of said at least one sheet is

less than or equal to said sheet weight limit (see column 4 lines 29-65).

Regarding claims 5 and 28, Pitts further discloses wherein said programmed

signal disables said detack charger when said sheet weight of said at least one sheet is

greater than said sheet weight limit (see column 4 lines 29-65).

7.   Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pitts and

Kawana as applied to claim 20 above, and further in view of U.S. Patent No. 5257097 to

Pineau et al. as cited on the Information Disclosure Statement dated 5/22/03.

Pitts discloses wherein sheets to be printed upon can be coated paper of

transparencies (see column 4 lines 61-65).

Pitts and Kawana do not disclose expressly wherein said receiver sheet is a

tabloid.

Pineau discloses wherein said receiver sheet is a tabloid (see column 2 lines 55-

56).

Pitts, Kawana, & Pineau are combinable because they are from the same field of endeavor, printing documents.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the use of a tabloid as a paper stock option, as describe by Pineau with the system of Pitts and Kawana.

The suggestion/motivation for doing so would have been to provide more options for paper stock, (as mentioned by Pitts in column 4 lines 61-65) and increased efficiency for determining a particular type of stock.

Therefore, it would have been obvious to combine Pineau with Pitts and Kawana to obtain the invention as specified in claim 23.

Conclusion

8.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (571)272-7408. The examiner can normally be reached M-F 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached at (571) 272-7437. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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